

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau

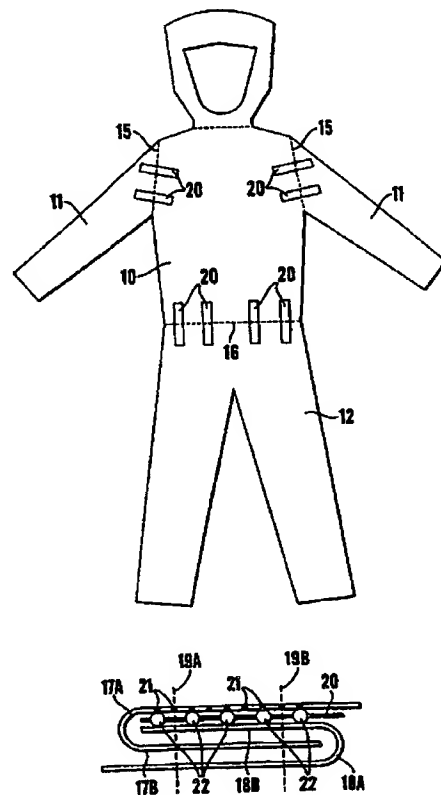
## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : A41D 13/00, 31/00		A1	(11) International Publication Number: <b>WO 99/43224</b>
			(43) International Publication Date: 2 September 1999 (02.09.99)
(21) International Application Number: PCT/GB99/00595		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 26 February 1999 (26.02.99).			
(30) Priority Data: 9803927.4 26 February 1998 (26.02.98) GB			
(71) Applicant (for all designated States except US): FENLAND LAUNDRIES LIMITED [GB/GB]; Roman Bank, Skegness, Lincolnshire PE25 1SQ (GB).			
(72) Inventors; and (75) Inventors/Applicants (for US only): HURST, Norman, John, Alfred [GB/GB]; 12 Chapel Lane, Toynnton-all-Saints, Spilsby, Lincolnshire PE23 5AF (GB). BARKER, Michelle, Sharon [GB/GB]; 10 Morris Gardens, Skegness, Lincolnshire PE25 2SQ (GB).		Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	
(74) Agent: LOVEN, Keith, James; Loven & Co., Quantum House, 30 Tentercroft Street, Lincoln LN5 7DB (GB).			

(54) Title: DISSIPATION OF STATIC ELECTRICITY IN WORKWEAR

## (57) Abstract

An article of workwear comprises a plurality of components (17, 18) incorporating electrically conductive fibres (21), and an electrically conductive member (20) bridging the junction between adjacent components. The electrically conductive member comprises a strip or tape (20) incorporating a plurality of electrically conductive filaments or yarns (22), each filament or yarn being incorporated in the strip or tape in such a manner as to have alternate portions of the filament or yarn exposed at opposite faces of the strip or tape. The strip or tape may be secured to each of the adjacent components by stitching (19).



**FOR THE PURPOSES OF INFORMATION ONLY**

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

# INTERNATIONAL SEARCH REPORT

Int. l. Application No.  
PCT/GB 99/00595

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 6 A41D13/00 A41D31/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 A41D B01D H05F H01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 546 497 A (ONO KAZUMASA ET AL) 15 October 1985 (1985-10-15) cited in the application column 2, line 35-40; figure 2 ---	1-6
Y	US 4 606 968 A (THORNTON PETER B ET AL) 19 August 1986 (1986-08-19) column 2, line 34 column 4, line 9-17 column 4, line 30.31; figure 2 ---	1-6
A	US 5 715 536 A (BANKS DAVID L) 10 February 1998 (1998-02-10) cited in the application column 2, line 65 column 3, line 24-30; figures 3,4 --- -/--	1,2,6

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

**Special categories of cited documents:**

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

28 July 1999

Date of mailing of the international search report

04/08/1999

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Monné, E

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB 99/00595

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	EP 0 274 454 A (GALLAGHER ELECTRONICS LTD ;Joubert SA (FR)) 13 July 1988 (1988-07-13) column 2, line 21-45; figures ---	1,3
A	DE 296 20 811 U (NSP SICHERHEITS PRODUKTE GMBH) 16 January 1997 (1997-01-16) claims 1-4; figures 5,6 ---	1,2,6
A	GB 1 221 724 A (LOOMS) 10 February 1971 (1971-02-10) page 1, line 22-37 page 1, line 76 page 2, line 20-29; figures 2,3 -----	1,6

# INTERNATIONAL SEARCH REPORT

Information on patent family members

In. ational Application No

PCT/GB 99/00595

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4546497	A	15-10-1985	DE 3340224 T WO 8303526 A	05-04-1984 27-10-1983
US 4606968	A	19-08-1986	EP 0149624 A JP 60028546 A WO 8500556 A US 4557968 A	31-07-1985 13-02-1985 14-02-1985 10-12-1985
US 5715536	A	10-02-1998	CA 2219848 A DE 19754901 A GB 2320669 A JP 10317212 A	26-06-1998 02-07-1998 01-07-1998 02-12-1998
EP 0274454	A	13-07-1988	AT 86779 T AU 614504 B AU 1010388 A CA 1320533 A DE 3878934 A DE 3878934 T DK 3988 A FI 880033 A IE 63002 B JP 63198209 A PH 24578 A PT 86496 A,B US 4861645 A	15-03-1993 05-09-1991 07-07-1988 20-07-1993 15-04-1993 21-10-1993 07-07-1988 07-07-1988 08-03-1995 16-08-1988 17-08-1990 30-01-1989 29-08-1989
DE 29620811	U	16-01-1997	NONE	
GB 1221724	A	10-02-1971	NONE	